



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,303	08/03/2006	Kazuo Kuroda	8048-1174	6863
466	7590	07/21/2009	EXAMINER	
YOUNG & THOMPSON			LAMB, CHRISTOPHER RAY	
209 Madison Street			ART UNIT	PAPER NUMBER
Suite 500			2627	
ALEXANDRIA, VA 22314			MAIL DATE DELIVERY MODE	
			07/21/2009 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,303	<b>Applicant(s)</b> KURODA, KAZUO
	<b>Examiner</b> CHRISTOPHER R. LAMB	<b>Art Unit</b> 2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 10,11,13-24 and 27 is/are pending in the application.
  - 4a) Of the above claim(s) 13-19,23,24 and 27 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 10,11 and 20-22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413) Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of species VII in the reply filed on April 8<sup>th</sup>, 2009 is acknowledged.
2. Claims 13-19, 23, 24, and 27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 8<sup>th</sup>, 2009.

3. Regarding claims 19, 23, 24, and 27:

These claims were indicated as either belonging to species VII or generic to both species VII and VIII in the Requirement for Restriction/Election mailed March 13<sup>th</sup>, 2009. However, upon further consideration, they are specific to species VIII.

In the case of claim 19:

It claims wherein the physical address is continuous in each of the plurality of block areas. This corresponds to Fig. 3c, which is species VIII. As can be seen from Fig. 3b, species VII, the physical address is continuous but it is not continuous in each block area because the block areas are on plural layers and the physical address is discontinuous between layers in a block area.

In the case of claims 23 and 24:

They both claim wherein the pre-record address is continuous in each of the plurality of block areas. If they're continuous in the block area, on a given layer they must be discontinuous between them. This is species VIII.

Art Unit: 2627

In the case of claim 27:

It is dependent on claim 19.

4. Regarding claim 21:

The examiner had previously indicated this as belonging to Species VIII, and applicant evidently agreed because they listed it as withdrawn in their reply.

However, upon further consideration, this claim appears to be directed to Species VII and therefore will be examined.

***Priority***

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Objections***

6. Claim 22 is objected to because of the following informalities: it is dependent on claim 10, which recites "a first controlling device," and this claim itself recites "a third controlling device," but there is no second controlling device recited in the claim. Thus the term "third controlling device" is confusing, as it implies that there is also a second controlling device, and would be better replaced with a descriptive name such as "logical address controlling device." Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2627

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ross (US 2003/0081535).

Regarding claim 10:

Ross discloses:

An information recording apparatus comprising:

a recording device for recording record information onto an information recording medium (Ross doesn't specifically show the recording device, but it follows from the disclosure: Ross discloses the end product, i.e., the information recording medium, and the details of how information is recorded on to it) comprising:

a first recording layer and a second recording layer in each of which the record information can be recorded and including one lead-in area and one lead-out area (the two layers, as well as at least one lead-in and lead-out are shown in Fig. 1); and

a first controlling device for controlling said recording device (there must be some means to control the recording)

(i) to record the record information by a unit of each of a plurality of block areas, each of which includes a partial recording area of said first recording layer and a partial recording area of said second recording layer located in a position facing the partial recording area of said first recording layer, in recording area

Art Unit: 2627

between the lead-in area and the lead-out area (shown in Fig. 1; each session is a "block area") and

(ii) to set an interlayer buffer area adjacent to at least one of the plurality of block areas by recording buffer data for buffering a change operation of changing a recording layer which is a recording target, into each of said first recording layer and said second recording layer, when the recording layer is changed from said first recording layer to said second recording layer (the buffer areas are shown in Fig. 1: they are labeled "middle area").

Regarding claim 11:

Ross discloses:

wherein said first controlling device controls said recording device to provide at least one of the plurality of block areas with a management information area to record therein management information for managing the record information which is recorded into the at least one of the plurality of block areas (the lead-in and lead-out areas are management information area: for example, the lead-out contains a pointer to the next area as per paragraph 17).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2627

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Ross in view of Ogawa et al. (US 2004/0202083).

Regarding claim 20:

Ross discloses an information recording apparatus as discussed above.

Ross does not disclose:

wherein said information recording medium has a pre-record address continuously given in said first recording layer and said second recording layer, the pre-record address determining a position where the record information is recorded on said information recording medium, and

said information recording apparatus further comprises an address giving device for giving a physical address recorded with the record information onto said information recording medium, so as to be proportional to the pre-record address.

Ogawa discloses:

wherein said information recording medium has a pre-record address continuously given in said first recording layer and said second recording layer, the pre-record address determining a position where the record information is recorded on said information recording medium (paragraph 22: the pre-record address is the wobble address), and

said information recording apparatus further comprises an address giving device for giving a physical address recorded with the record information onto said information recording medium, so as to be proportional to the pre-record address (paragraph 22: the physical address is the address information in the

Art Unit: 2627

header; that it is proportional to the pre-record address follows from paragraph 145).

It would have been obvious to one of ordinary skill in the art to include in Ross the elements taught by Ogawa.

The rationale is as follows:

Ogawa is directed to the same field of art (dual layer optical media). Ogawa discloses a known technique for addressing which can solve several problems (e.g., paragraph 22). One of ordinary skill in the art could have combined the teaching of Ogawa with that of Ross and achieved predictable results.

11. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross in view of Ogawa as applied to claim 20 above, and further in view of Ono et al. (US 6,643,231).

For ease of explanation, these claims will be addressed in reverse order: claim 22 and then claim 21.

Regarding claim 22:

Ross in view of Ogawa discloses an information recording apparatus as discussed in the rejection of claim 20.

Ross in view of Ogawa discloses wherein:

said information recording medium has a pre-record address continuously given in said first recording layer and said second recording layer, the pre-record address determining a position where the record information is recorded on said information recording medium (taught by Ogawa as discussed above),

and has discontinuity point information recorded in advance (paragraph 16: the pointer to the second logical disc is discontinuity point information).

Ross in view of Ogawa does not disclose:

the discontinuity point information indicating a discontinuity point of a relationship between a logical address, used when at least one of recording and reproduction of the record information is performed in each of the plurality of block areas, and a physical address recorded with the record information onto said information recording medium, and

said information recording apparatus further comprises a third controlling device for controlling said recording device to record at least one of the record information and reproduction control information for controlling reproduction of the record information by using the logical address having a fixed relationship with the physical address which is proportional to the pre-record address.

Ono discloses:

a logical address, used when at least one of recording and reproduction of the record information is performed, wherein the logical address has a fixed relationship with the physical address (shown in Fig. 3b).

It would have been obvious to one of ordinary skill in the art to include in Ross a logical address, used when at least one of recording and reproduction of the record information is performed, wherein the logical address has a fixed relationship with the physical address.

The rationale is as follows:

Art Unit: 2627

Ono discloses that the use of a logical address is a known method for addressing a dual layer disc. One of ordinary skill in the art could have combined it with the teaching of Ross in view of Ogawa and achieved predictable results.

Then the combination discloses:

the discontinuity point information indicating a discontinuity point of a relationship between a logical address, used when at least one of recording and reproduction of the record information is performed in each of the plurality of block areas, and a physical address recorded with the record information onto said information recording medium (Ross already discloses that the discontinuity point information indicates the discontinuity between logical discs; the extension to the addressing used for those discs is obvious), and

said information recording apparatus further comprises a third controlling device for controlling said recording device to record at least one of the record information and reproduction control information for controlling reproduction of the record information by using the logical address having a fixed relationship with the physical address which is proportional to the pre-record address (Ogawa already taught a physical address proportional to the pre-record address; Ono shows the fixed relationship between the logical and physical in Fig. 3b).

Regarding claim 21:

Ross in view of Ogawa, and further in view of Ono, discloses:

wherein said information recording medium has a pre-record address continuously given in said first recording layer and said second recording layer, the pre-record address determining a position where the record information is

Art Unit: 2627

recorded on said information recording medium (taught by Ogawa as discussed above), and

said information recording apparatus further comprises a second controlling device for controlling said recording device, to record discontinuity point information which indicates a discontinuity point of a relationship between a logical address, used when at least one of recording and reproduction of the record information is performed in each of the plurality of block areas, and a physical address recorded with the record information onto said information recording medium, into a management information area to record therein management information for managing the record information, and to record at least one of the record information and reproduction control information for controlling reproduction of the record information such that the logical address is continuous in each of the plurality of block areas (each area of Ross is a logical disc and therefore the logical address must be continuous inside it; the pointer information in the lead-out of Ross, e.g., paragraph 16 is management information for managing the record information: in the combination the pointer would have to point to the physical address).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ishida et al. (US 5,930,225) discloses a plurality of blocks on multiple layers; so does Kuroda (US 6,370,091) and Ishida et al. (US 5,729,525).

Art Unit: 2627

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER R. LAMB whose telephone number is (571)272-5264. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher R Lamb/  
Examiner, Art Unit 2627